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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,738	02/15/2001	Barrett Richard Bobsein	A01013	2912

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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,738

Applicant(s)

BOBSEIN ET AL.

eb08

Examiner

Helen L. Pezzuto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-4, drawn to a binder composition, classified in class 526, subclass 303.1.

II. Claims 5-10, drawn to a coating process and coated paper product, classified in class 427, 428, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship.

Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as is in and of itself without the presence of additional constituents, which would react in-situ to produce a mutually exclusive final product species, and the inventions are deemed patentably distinct since there is nothing on this record to show them to

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be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Ms. Kim Jessum on 5/18/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5-10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Wesslau et al. (US-410) or EP 0 019 170 or DE 1 696 163.

U.S. 3,365,410 to Wesslau et al. discloses and exemplifies a process of producing binders for paper coating compositions. Prior art binder comprises a mixture of aqueous emulsions of copolymer A and B, each obtained by conventional emulsion polymerization methods using conventional anionic and/or nonionic emulsifiers (col. 3, lines 22-53). Patentees' binder contains 95-60 parts by weight of copolymer A and 5-40 parts by weight of copolymer B (col. 3, lines 54-61; see working examples). Specifically, copolymer A has a glass transition

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temperature between -60° and $+20^{\circ}\text{C}$, comprises 10-90 wt% of (meth)acrylic esters having 1 to 8 carbons, including those expressed in claim 3, 10-90 wt% of vinyl ester and up to 10 wt% of other ethylenically unsaturated monomer such as the instant styrene, acrylonitrile (col. 1, line 59 to col. 2, line 45). The copolymer B in prior art comprises 15-55 wt% (meth)acrylic acid, 25-45 wt% of C1-C4 (meth)acrylic esters, and 20-40 wt% of hydrophobic monomers (col. 2, line 68 to col. 3, line 21).

EP-0019170 discloses an aqueous binder dispersion mixture for paper coating, comprising 95-70 pts. wt. of an emulsion copolymer A and 5-30 pts. wt. of an emulsion copolymer B. Specifically prior art copolymer A has a glass transition temperature between -20 and $+10^{\circ}\text{C}$, contains 80-96 wt% of C2-C8 acrylic esters, up to 19.5 wt% of styrene, methyl methacrylate or acrylonitrile, and 0.5 to 10 wt% of water-soluble monomers such as C3-C5 carboxylic acid, including (meth)acrylic acid, (meth)acrylamide, and acrylamidopropanesulfonic acid as expressed in the present claims. Prior art emulsion copolymer B comprises 85-45% of hydrophobic monomers, up to 10 wt% (meth)acrylamide, and 15-55 wt% (meth)acrylic acid. Copolymer A and B are

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prepared by conventional emulsion polymerization methods in the presence of anionic or nonionic emulsifiers (see working examples).

Similarly, DE 1696163 discloses a paper coating composition containing a binder. Prior art binder is a mixture of 90-99.5 wt% of copolymer A and 0.5-10 wt% of copolymer B. In particular, copolymer A has a glass transition temperature between -60 and +30°C, containing 20-70 wt% of styrene and/or acrylonitrile, 80-30 wt% of C1-C12 (meth)acrylates as expressed in claim 3, and up to 10 wt% of hydrophilic monomers such as (meth)acrylic acid, (meth)acrylamide. Copolymer B contains 70-90 wt% of (meth)acrylic esters, 5-40 wt% of ethylenically unsaturated carboxylic acids having 3 to 5 carbon atoms and up to 10 wt% of (meth)acrylamide, styrene, acrylonitrile or vinyl acetate. Both copolymer A and B are prepared by known emulsion polymerization using conventional additives.

Accordingly, the instant claims 1-3 are anticipated by prior art disclosures.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the prior art references applicable to claims 1-3 above and further in view of the following.

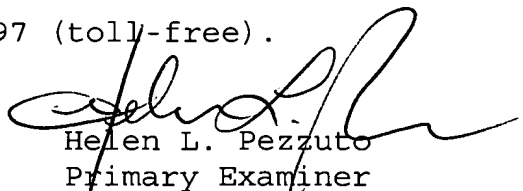
Prior art references disclose and exemplified the instant binder composition comprising the admixtures of two emulsion copolymers. The references do not expressly exemplify the average particle diameter recited in claim 4. The examiner takes the position that such property is considered inherent in prior art binder because emulsion polymerization methods are utilized by applicants and the prior art. The burden is placed upon the applicant to provide clear evidence that the respective binder compositions do in fact differ. In any event, one skilled in the polymer art would expect the average particle diameter of the polymer particles obtained from emulsion polymerization to be the claimed range (see any polymer textbook). Thus, one skilled in the art would envisage the particle diameter.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen L. Pezzuto
Primary Examiner
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hlp